## **ABSTRACT OF THE DISCLOSURE**

A method is provided for analysing a sample. The method comprises the steps of: i) contacting the sample with a detector array comprising a plurality of discrete biological sensing elements immobilised onto or within a solid support; wherein each discrete biological sensing element comprises a detectable label whose characteristics change detectably when the element binds to a ligand within the sample; ii) measuring the characteristics of the detectable label for each element of the array to produce a pattern; and iii) performing data analysis of the pattern; wherein the biological sensing elements are capable of binding more than one different ligand.